drains water, sediment, and dissolved materials to a common outlet at some point along a stream channel" (Dunne and Leopold 1978). Form varies greatly, however, and is tied to many factors including climatic regime, underlying geology, morphology, soils, and vegetation.

## **Drainage Patterns**

One distinctive aspect of a watershed when observed in planform (map view)

is its drainage pattern (**Figure 1.29**). Drainage patterns are primarily controlled by the overall topography and underlying geologic structure of the watershed.

## Stream Ordering

A method of classifying, or ordering, the hierarchy of natural channels within a watershed was developed by Horton (1945). Several modifications of the original stream ordering scheme have

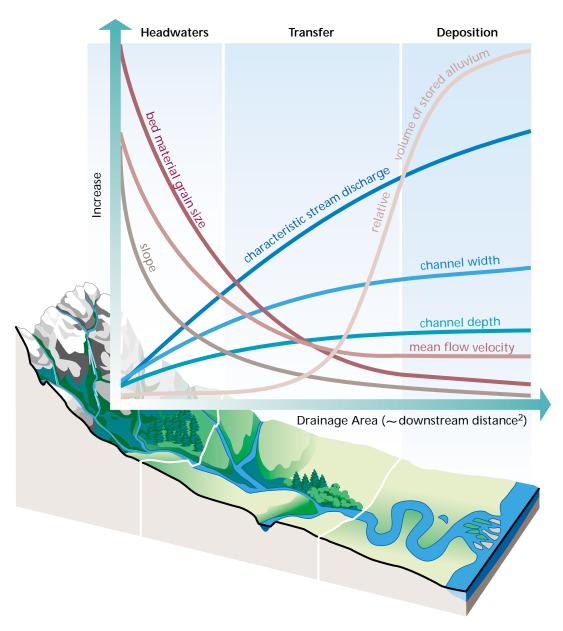


Figure 1.28: Changes in the channel in the three zones. Flow, channel size, and sediment characteristics change throughout the longitudinal profile.

